

WHAT IS CLAIMED IS:

1. An electronic device comprising a headset with a first unit that has:
  - a first interface for receiving a first input signal;
  - a processor for processing the first input signal to generate a first audio signal in a first operational mode of the first unit;
  - a second interface for receiving a second input signal in a second operational mode, different from the first operational mode, of the headset for generating a second audio signal.
2. The device of claim 1, wherein the unit in the first operational mode has a stand-alone functionality.
3. The device of claim 1, wherein:
  - the headset has a second unit for connecting to the second interface;
  - the second unit has a second processor for generating the second input signal; and
  - the second operational mode of the first unit involves cooperation with the second unit.
4. The device of claim 3, wherein:
  - at least the first unit or the second unit has a power source; and
  - the first and second units share the power source in the second operational mode.
5. The device of claim 3, wherein:
  - at least the first unit or the second unit has a memory; and
  - the first and second units functionally share the memory in the second operational mode.
6. The device of claim 3, wherein:
  - at least the first or the second unit has a processor; and
  - the first and second units functionally share the processor in the second operational mode.
7. The device of claim 3, wherein
  - at least the first or the second unit has a user interface for enabling a user to control at least the first or the second audio signal; and

- the first and second units functionally share the user control in the second operational mode.

8. The device of claim 2, wherein the first unit functions in the first operational mode as an earpiece for a mobile phone.

9. The device of claim 8, equipped with a transceiver for wirelessly communicating with the mobile phone.

10. The device of claim 3, wherein the first unit functions in the second operational mode as an earpiece for one channel of stereo audio generated by the second unit.

11. The device of claim 3, wherein:

- each of the first and second units comprises respective Bluetooth communication components;
- each of the first and second units has a respective MAC address; and
- when in the second operational mode, a specific one of the first and second units assumes a role of a master and the other unit assumes a role of a slave determined by the respective MAC addresses.

12. A first headset unit comprising:

- a first interface for receiving a first input signal;
- a processor for processing the first input signal to generate a first audio signal in a first operational mode of the first unit;
- a second interface for receiving a second input signal in a second operational mode, different from the first operational mode, of the headset for generating a second audio signal.

13. The first headset unit of claim 12, comprising a transceiver for wirelessly communicating with a mobile phone.

14. The first headset unit of claim 12, operative to switch between the operational modes under control of the second interface.

15. A second headset unit for upon connection to an interface of a first headset unit sharing a

resource of the second headset unit.

16. The second headset unit of claim 15, comprising a stereo audio processor.

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